

ABSTRACT OF THE DISCLOSURE

A catalyst and process is disclosed to selectively upgrade a paraffinic feedstock to obtain an isoparaffin-rich product for blending into gasoline. The catalyst comprises a support of a sulfated oxide or hydroxide of a Group IVB (IUPAC 4) metal, a first 5 component of at least one lanthanide element or yttrium component, which is preferably ytterbium, and at least one platinum-group metal component which is preferably platinum.